ESRF	**Experiment title:** Ultra-rapid structural reorganization in thin films of self-assembling block copolymers: a GISAXS study	**Experiment number**: MA-1712
Beamline: ID01	**Date of experiment**: from: 19 May 2013 to: 22 May 2013	**Date of report**: 27 February 2014
Shifts: 9	**Local contact(s)**: Jan Hilhorst, Tobias Schulli	*Received at ESRF:*

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Report:

The experimental results have been published in the paper

G. Seguini, T. J. Giammaria, F. Ferrarese Lupi, K. Sparnacci, D. Antonioli, V. Gianotti, F. Vita, I. F. Placentino, J. Hilhorst, C. Ferrero, O. Francescangeli, M. Laus, M. Perego, "Thermally induced self-assembly of cylindrical nanodomains in low molecular weight PS-*b*-PMMA thin films", *Nanotechnology* **25**, 045301 (2014),

whose abstract is reported below

The phase behaviour in thin films of an asymmetric polystyrene-b-polymethylmethacrylate (PS-b-PMMA) block copolymer with a molecular weight of 39 kg mol^{-1} was assessed at a wide range of temperatures and times. Cylindrical PMMA structures featuring a diameter close to 10 nm and perpendicularly oriented with respect to the substrate were obtained at 180 °C in relatively short annealing times (t < 30 min) by means of a simple thermal treatment performed in a standard rapid thermal processing machine.